
Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: [year=2009; month=9; day=3; hr=8; min=50; sec=40; ms=281;]

Validated By CRFValidator v 1.0.3

Application No: 10539402 Version No: 2.0

Input Set:

Output Set:

Started: 2009-09-01 16:50:17.498

Finished: 2009-09-01 16:50:21.960

Elapsed: 0 hr(s) 0 min(s) 4 sec(s) 462 ms

Total Warnings: 60

Total Errors: 0

No. of SeqIDs Defined: 162

Actual SeqID Count: 162

Error code		Error Description
W	402	Undefined organism found in <213> in SEQ ID (1)
W	402	Undefined organism found in <213> in SEQ ID (2)
W	402	Undefined organism found in <213> in SEQ ID (3)
W	402	Undefined organism found in <213> in SEQ ID (4)
W	402	Undefined organism found in <213> in SEQ ID (73)
W	402	Undefined organism found in <213> in SEQ ID (74)
W	213	Artificial or Unknown found in <213> in SEQ ID (109)
W	213	Artificial or Unknown found in <213> in SEQ ID (110)
W	213	Artificial or Unknown found in <213> in SEQ ID (111)
W	213	Artificial or Unknown found in <213> in SEQ ID (112)
W	213	Artificial or Unknown found in <213> in SEQ ID (113)
W	213	Artificial or Unknown found in <213> in SEQ ID (114)
W	213	Artificial or Unknown found in <213> in SEQ ID (115)
W	213	Artificial or Unknown found in <213> in SEQ ID (116)
W	213	Artificial or Unknown found in <213> in SEQ ID (117)
W	213	Artificial or Unknown found in <213> in SEQ ID (118)
W	213	Artificial or Unknown found in <213> in SEQ ID (119)
W	213	Artificial or Unknown found in <213> in SEQ ID (120)
W	213	Artificial or Unknown found in <213> in SEQ ID (121)
W	213	Artificial or Unknown found in <213> in SEQ ID (122)

Input Set:

Output Set:

Started: 2009-09-01 16:50:17.498 **Finished:** 2009-09-01 16:50:21.960

Elapsed: 0 hr(s) 0 min(s) 4 sec(s) 462 ms

Total Warnings: 60
Total Errors: 0
No. of SeqIDs Defined: 162

Actual SeqID Count: 162

Error code		Error Description										
W	213	Artificial or Unknown found in <213> in SEQ ID (123)										
W	213	Artificial or Unknown found in <213> in SEQ ID (124)										
W	213	Artificial or Unknown found in <213> in SEQ ID (125)										
W	213	Artificial or Unknown found in <213> in SEQ ID (126)										
W	213	Artificial or Unknown found in <213> in SEQ ID (127)										
W	213	Artificial or Unknown found in <213> in SEQ ID (128) This error has occured more than 20 times, will not be displayed										

SEQUENCE LISTING

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<110> UNGER, CHRISTINE MARGARETE
     BESTE, GERALD
     ZEHETMEIER, CAROLIN
     LAIN, BLANCA
     TORELLA, CLAUDIA
     NIEWOHNER, JENS
     JAY, DANIEL G.
     EUSTACE, BRENDA K.
     KNAUER, ROLAND
     JENSEN, KRISTIAN HOBOLD
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<141> 2005-12-22
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<150> 60/435,893
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<213> Mus sp.
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             5
                                                15
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        20 25 30
Asp Ile Asn Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
      35
                      40
Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Lys Tyr Asn Glu Lys Phe
              55
   50
                              60
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Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Thr Thr Val Tyr

70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asn Ser Ala Val Tyr Phe Cys 85 90 95

Ala Arg Gly Gly Lys Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Thr Leu 100 105 110

Thr Val Ser Thr Gly Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly 115 120 125

Gly Ser Ala Leu Asp Ile Val Met Thr Gln Ser Pro Lys Phe Met 130 135 140

Asn Val Ala Thr Asn Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser 165 170 175

Pro Lys Pro Leu Thr Tyr Ser Ala Ser Phe Arg Ser Ser Gly Val Pro 180 185 190

Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile 195 200 205

Ser Asn Val Gln Ser Glu Asp Leu Ala Glu Tyr Phe Cys Gln Gln Tyr 210 215 220

Asn Ser Tyr Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys 225 230 235 240

Ala Ala Ala Gly Ala Pro Val Pro Tyr Pro Asp Pro Leu Glu Pro Arg \$245\$ \$250\$ \$255\$

Gly Ala Ala Ser Ala Trp Ser His Pro Gln Phe Glu Lys 260 265

<210> 2

<211> 288

<212> PRT

<213> Mus sp.

<400> 2

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Ser L∈	eu Arg	Leu 20	Ser	Cys	Ala	Ala	Ser 25	Gly	Phe	Thr	Phe	Ser 30	Ser	Tyr
Ala Me	t Ser 35	Trp	Val	Arg	Gln	Ala 40	Pro	Gly	Lys	Gly	Leu 45	Glu	Trp	Val
Ser Al)				55					60				
Lys Gl				70					75					80
Leu Gl Ala Aı			85					90					95	
Val As		100	_				105					110		
Val Th	115					120					125			
13 Gly Gl		Ser	Ala	Gln	135 Ala	Val	Leu	Thr	Gln	140 Pro	Ser	Ser	Ala	Ser
145 Gly Th	ır Pro	Gly	Gln	150 Arg	Val	Thr	Ile	Ser	155 Cys	Ser	Gly	Ser	Asn	160 Ser
Asn Il	e Gly	-	165 Asn	Tyr	Val	Phe	_	170 Tyr	Gln	Gln	Phe		175 Gly	Thr
Ala Pı	_		Leu	Ile	Tyr	_	185 Asn	Asn	Gln	Arg		190 Ser	Gly	Val
Pro As			Ser	Gly	Ser 215	200 Lys	Ser	Gly	Thr	Ser 220	205 Ala	Ser	Leu	Ala
					-					-				

Ile Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ser

225 230 235 240

Trp Asp Asp Ser Leu Thr Trp Val Phe Gly Gly Gly Thr Lys Val Thr 245 250 255

Val Leu Gly Ala Ala Gly Ala Pro Val Pro Tyr Pro Asp Pro Leu 260 265 270

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<211> 810

<212> DNA

<213> Mus sp.

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<213> Mus sp.

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ccagggaagg	ggctggagtg	ggtctcagct	attagtggta	gtggtggtag	cacatactac	180
gcagactccg	tgaagggccg	gttcaccatc	tccagagaca	attccaagaa	cacgctgtat	240
ctgcaaatga	acagcctgag	agccgaggac	acggccgtgt	attactgtgc	gcgagactcg	300
gggctacagc	agggaccccg	ccgaagaggg	gcccgagtaa	atttctccta	ctacggtctg	360
gacgtctggg	ggcgggggac	cacggtcacc	gtctcgagtg	gaggcggcgg	ttcaggcgga	420
ggtggctctg	gcggtggcgg	aagtgcacag	gctgtgctga	ctcagccgtc	ctcagcgtct	480
gggacccccg	ggcagagggt	caccatctct	tgttctggaa	gcaactccaa	catcggacgc	540
aattatgtat	tctggtacca	gcagttccca	ggaacggccc	ccaaaatcct	catctacagg	600
aacaatcagc	ggccctcagg	ggtccctgac	cgattctctg	gctccaagtc	tggcacatca	660
gcctccctgg	ccatcagtgg	gctccggtcc	gaggatgagg	ctgattatta	ctgtgcatca	720
tgggatgaca	gcctgacttg	ggtgttcggc	ggagggacca	aggtcaccgt	cctaggtgcg	780
gccgcaggtg	cgccggtgcc	gtatccagat	ccgctggaac	cgcgtggggc	cgcaagcgct	840
tggagccacc	cgcagttcga	aaaataa				867

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<211> 246

<212> PRT

<213> Homo sapiens

<400> 5

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Tyr Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp
20 25 30

Met Gly Arg Ile Asn Pro Asn Thr Gly Gly Ile Asn Leu Ala Gln Lys $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45 \hspace{1.5cm}$

Phe Gln Gly Arg Val Thr Val Thr Arg Asp Thr Ser Ile Ser Thr Ala 50 55 60

His Met Glu Leu Ser Arg Leu Ser Ser Asp Asp Thr Ala Val Tyr Tyr 65 70 75 80

Cys Ala Arg Glu Arg Ile Val Pro Ala Gly Leu Arg Asn Arg Gly Met

 85
 90
 95

Val Thr Ala Val Gly Met Asp Val Trp Gly Arg Gly Thr Leu Val Thr
100 105 110

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly 115 $120 \hspace{1.5cm} 125$

Gly Ser Ala Gln Ser Val Val Thr Gln Pro Pro Ser Met Ser Gly Thr 130 135 140

Gly Arg Asn Tyr Val Tyr Trp Tyr Gln Gln Phe Pro Gly Thr Ala Pro \$165\$ \$170\$ \$175\$

Lys Leu Leu Ile Tyr Arg Asn Asn Glu Arg Pro Ser Gly Val Pro Asp 180 185 190

Arg Phe Ser Ala Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser 195 200 205

Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp 210 215 220

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Val Leu Gly Ala Ala Ala 245

<210> 6 <211> 248

<212> PRT

<213> Homo sapiens

<400> 6

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1 10 15

Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr Ala Met Ser 20 25 30

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Ser	Gly 50	Ser	Gly	Gly	Ser	Thr 55	Tyr	Tyr	Ala	Asp	Ser 60	Val	Lys	Gly	Arg
Phe 65	Thr	Ile	Ser	Arg	Asp 70	Asn	Ser	Lys	Asn	Thr 75	Leu	Tyr	Leu	Gln	Met 80
Asn	Ser	Leu	Arg	Ala 85	Glu	Asp	Thr	Ala	Val 90	Tyr	Tyr	Cys	Ala	Arg 95	Gly
Gly	Gly	Arg	Tyr 100	Asp	Ser	Ser	His	Gly 105	Phe	Asp	Ser	Trp	Gly 110	Arg	Gly
Thr	Met	Val 115	Thr	Val	Ser	Ser	Gly 120	Gly	Gly	Gly	Ser	Gly 125	Gly	Gly	Gly
Ser	Gly 130	Gly	Gly	Gly	Ser	Ala 135	Leu	Ser	Tyr	Glu	Leu 140	Thr	Gln	Pro	Pro
Ser 145	Val	Ser	Val	Ala	Pro 150	Gly	Glu	Thr	Ala	Thr 155	Ile	Thr	Суз	Gly	Gly 160
Arg	Ser	Leu	Gly	Ser 165	Lys	Val	Val	His	Trp 170	Tyr	Gln	Gln	Lys	Pro 175	Gly
Gln	Ala	Pro	Thr 180	Leu	Val	Ile	Tyr	Tyr 185	Asp	Ser	Val	Arg	Pro 190	Ser	Gly
Val	Pro	Glu 195	Arg	Phe	Ser	Ala	Ser 200	Asn	Ser	Arg	Leu	Ser 205	Ala	Thr	Leu
Thr	Val 210	Ser	Arg	Val	Glu	Ala 215	Gly	Asp	Glu	Ala	Asp 220	Tyr	Tyr	Суз	Gln
Val 225	Trp	Asp	Arg	Ser	Ser 230	Asp	His	Tyr	Val	Phe 235	Gly	Thr	Gly	Thr	Lys 240
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<213> Homo sapiens
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35 40 45
Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly
            55
Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln
65 70 75 80
Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
                      90
          85
Asp Trp Arg Trp Gln Gln Phe Gly Gly Trp Phe Asp Pro Trp Gly Arg
      100 105 110
Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Ser Gly Gly Gly
 115 120 125
Gly Ser Gly Gly Gly Ser Ala Leu Glu Thr Thr Leu Thr Gln Ser
  130
         135 140
Pro Ala Thr Leu Ser Leu Ser Pro Gly Glu Thr Ala Thr Leu Phe Cys
145 150 155 160
Arg Ala Ser Gln Ser Val Arg Asn Asn Leu Val Trp Tyr Gln Gln Lys
                 170
          165
                               175
Leu Gly Gln Ala Pro Arg Leu Leu Ile Phe Gly Ala Ser Thr Arg Ala
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180 185 190

Ser Gly Ile Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe

205

195 200

Ser Leu Thr Ile Thr Lys Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr 210 215 220

Cys Gln Arg Tyr Gly Gly Phe Pro Ile Thr Phe Gly Gln Gly Thr Arg 225 230 235 240

Leu Glu Ile Lys Arg Ala Ala Ala 245

<210> 8

<211> 247

<212> PRT

<213> Homo sapiens

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Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser 35 40 45

Met Ser Asp Ser Gly Ala Asn Thr Tyr Tyr Ala Asp Ser Val Lys Gly 50 55 60

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Met Leu Tyr Leu Gln 65 70 75 80

Met Ser Ser Leu Arg Gly Glu Asp Thr Ala Val Tyr Tyr Cys Ala Thr 85 90 95

Leu Phe Arg Gly Ser Gly Tyr Val Arg His Trp Gly Arg Gly Thr Leu 100 105 110

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Gly
115 120 125

Gly Gly Ser Ala Gln Ala Val Leu Thr Gln Pro Ser Ser Ala Ser 130 135 140

Gly Thr Pro Gly Gln Arg Val Ile Ile Ser Cys Ser Gly Ser Ser Ser 145 150 155 160

Asn Ile Ala Ser Asn Tyr Val Tyr Trp Tyr Gln Gln Leu Pro Gly Thr 165 170 Ala Pro Lys Leu Ile Ser Lys Asn Ser Arg Arg Pro Ser Gly Val 180 185 190 Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala 195 200 205 Ile Ser Glu Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala 210 215 220 Trp Asp Asp Arg Leu Ser Gly Pro Ala Phe Gly Gly Gly Thr Lys Leu 230 235 Thr Val Leu Gly Ala Ala Ala 245 <210> 9 <211> 248 <212> PRT <213> Homo sapiens <400> 9 Lys Lys Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly 1 5 10 15 Thr Phe Ser Ser Tyr Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln 25 30 20 Gly Leu Glu Trp Met Gly Gly Ile Ile Pro Met Ser Gly Thr Pro Asn 35 40 45 Tyr Ala Gln Lys Phe Gln Asp Arg Val Thr Ile Thr Ala Asp Lys Ser 50 55 60 Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr 65 70 75 80 Ala Val Tyr Tyr Cys Ala Arg Gly Gly Arg Tyr Val Asp Phe Gly Arg 85 90

Gly Pro Ser Tyr His Tyr Tyr Tyr Met Asp Val Trp Gly Arg Gly Thr

105

110

100

Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser 115 120 125

Gly Gly Gly Ser Ala Gln Ser Val Leu Thr Gln Pro Pro Ser Ala 130 $$135\$

Ser Asn Ile Gly Arg Asn Tyr Val Tyr Trp Tyr His Gl
n Leu Pro Gly $$16\$